

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F04B43/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 198 48 215 C (TALLY COMPUTERDRUCKER GMBH) 23 December 1999 (1999-12-23) the whole document column 4, line 26 - line 33 ---	1
X	GB 1 023 193 A (HERBERT GEORGE BURKS) 23 March 1966 (1966-03-23) the whole document ---	1
A	US 6 036 459 A (ROBINSON REGINALD D) 14 March 2000 (2000-03-14) figures 6,7 ---	1
A	US 5 340 290 A (CLEMENS ANTON H) 23 August 1994 (1994-08-23) column 5, line 55 -column 6, line 14 --- -/-	1

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
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- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

17 June 2003

Date of mailing of the international search report

25/06/2003

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 586 882 A (TSENG CHARLES C) 6 May 1986 (1986-05-06) figures 1,2 -----	1

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 19848215	C	23-12-1999	DE 19848215 C1	23-12-1999
GB 1023193	A	23-03-1966	NONE	
US 6036459	A	14-03-2000	US 5840069 A	24-11-1998
US 5340290	A	23-08-1994	NONE	
US 4586882	A	06-05-1986	AU 5197786 A	01-07-1986
			CA 1240556 A1	16-08-1988
			EP 0205491 A1	30-12-1986
			WO 8603561 A1	19-06-1986
			ZA 8509291 A	27-08-1986